

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 April 2002 (04.04.2002)

PCT

(10) International Publication Number
WO 02/27028 A1

- (51) International Patent Classification⁷: C12Q 1/68, C07H 21/02, 21/04, C12N 15/00
- (21) International Application Number: PCT/US01/30366
- (22) International Filing Date:
27 September 2001 (27.09.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/676,052 28 September 2000 (28.09.2000) US
- (71) Applicant (for all designated States except US): **ATAIR-GIN TECHNOLOGIES, INC.** [US/US]; 101 Theory Street, Suite 150, Irvine, CA 92612-3045 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SKINNER, Michael, K.** [US/US]; 770 SW Staley Drive, Pullman, WA 99163 (US). **PATTON, Jodi, L.** [US/US]; 738 NE Campus, Pullman, WA 99163 (US). **CHAUDHARY, Jaideep** [IN/US]; 2416 Calle Alcorisa, Tustin, CA 92782 (US).
- (74) Agents: **EAGLEMAN, Patrick, S. et al.**; Lyon & Lyon LLP, Suite 4700, 633 West Fifth Street, Los Angeles, CA 90071-2066 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A METHOD OF DETERMINING TUMOR CHARACTERISTICS BY DETERMINING ABNORMAL COPY NUMBER OR EXPRESSION LEVEL OF LIPID-ASSOCIATED GENES

(57) Abstract: The present invention relates to a method of determining tumor characteristics in tissue samples taken from a patient by determining the copy number or expression level of genes associated with lipid metabolism, synthesis, or action in the sample. This determination may be made by directly quantifying the gene copy number in the chromosomal material of the tissue sample, or by determining the transcription level of the gene in the tissue sample. The present invention is also drawn to physical platforms which are useful in carrying out the diagnostic method, specifically arrays of nucleic acids useful for determining the copy number of the lipid associated genes by hybridization techniques.